

REMARKS

The comments of the applicant below are each preceded by related comments of the examiner (in small, bold type).

The abstract of the disclosure is objected to because extraneous markings are present (i.e. 20702106.doc, see line 7). Correction is required. See MPEP § 608.01 (b).

The abstract has been corrected.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Without conceding that the original title was not descriptive, the title has been amended.

Claims 1-3, 5-8, 10-14, 16-19, 21-26, 28-30, 32-35, 37-40, 42-44 and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lasserre et al., hereinafter Lasserre (US PG Publication 2002/0069339 A1) in further view of Turner (US PG Publication 2001/0030976 A1).

As for claims 1 and 47, Lasserre teaches a method comprising:

determining a type of endian conversion to be performed on a portion of data (page) stored within a memory system (an endianism attribute bit is stored according to the endian format - paragraph 0073, all lines). A determination is subsequently made to convert formats (using a software routine) if an endian mismatch is detected paragraph 0075, all lines; and writing a table entry to a memory management table that specifies the endian type of the portion of data (a TLB (TLB contains the information stored in table format - see Fig. 3) is used to store the endianism attribute for each TLB entry -paragraph 0062, lines 1-4).

Despite these teachings, Lasserre fails to teach his attribute bit as indicating the conversion to be performed; rather he teaches using the bit to indicate the format of the data currently stored (paragraph 0073, lines 7-10 - the endianism attribute is set according to the selected endianism format).

The applicant agrees that Lasserre fails to teach “writing a table entry to a memory management table that specifies the type of endian conversion to be performed” as recited in claims 1 and 47. In addition, Lasserre neither describes nor would have made obvious “determining a type of endian conversion to be performed” as recited in claims 1 and 47. To the contrary, Lasserre’s endianness attribute bit indicates the endianism (orientation) of stored data (paragraph 0062, lines 1-3) and is used to detect a mismatch and, where necessary, rewrite data using an alternative endianism format. (figure 6).

Turner however teaches a field descriptor, which indicates what type of endian conversion is to be performed (either byte swapping (i.e. data coherent), or no byte swapping in which an alignment adjustment is required - paragraph 0040, lines 1-10).

Note that even though Turner teaches two bits as being used for the field descriptor, only the most significant bit is used to determine if the byte swapping conversion (bit is de-asserted) is to take place, or no byte swapping conversion, alignment adjusted (bit is asserted) is to take place. This is supported by the table as illustrated below paragraph 0042 on page 3 of the disclosure.

The applicant disagrees. The field indicator in Turner does not indicate a type of endian conversion is to be performed. Turner discloses a "field descriptor [that] can have three possible values, the value denoting one of three types of field. The field can be either a word which may require byte swapping, or a word which should not be byte swapped, or a specific alignment requirement" (paragraph 0040, lines 1-7). None of these field descriptor values indicates a type of endian conversion to be performed. The first value only indicates that the "word is an integer, which may require an endianness swap" (paragraph 0044, lines 6-7). The second value indicates only that the data is a text word and as such should not be endian swapped (paragraph 0046, lines 4-7). The third value indicates that an alignment adjustment is required. The adjustment comprises "tell[ing] a pointer to skip to the next 4-byte boundary" (paragraph 0048, lines 11-12). Turner teaches that "no data is copied for entries of this type," as compared to the first type which is "subject to byte swapping when packing/unpacking" (paragraph 0042, table). (It appears that Turner uses "endianness swap" and "byte swapping" interchangeably.) The alignment adjustment is therefore not a type of endian conversion.

It would have been obvious to one of ordinary skill at the time of the invention for Lasserre to utilize Turner's system for packet conversion. By doing so, Lasserre would benefit by providing a more efficient method of transferring data to and from the wireless device (as shown by Lasserre in Fig. 8) used to implement his disclosed system. Lasserre could improve system efficiency by exploiting Turner's system for packet "packing" which helps to reduce unused memory "spaces", hence improving memory bandwidth, as taught by Turner in paragraph 0004, lines 1-11.

The applicant disagrees. Even if there were some reason to combine the two references, which the applicant disputes, the result would not be the claimed invention. Neither reference

describes or would have made obvious, alone or together, the determination of a type of endian conversion to be done. Claims 1 and 47 are patentable for at least these reasons.

As for claims 7 and 18 ...

As for claim 13, ...

As for claim 24 ...

As for claims 29 and 34, ...

As for claims 39 and 43, ...

Claims 7, 13, 18, 24, 29, 34, 39, and 43 are patentable for at least similar reasons as claim 1.

As for claims 5, 10, 16, 21, 25, 42 and 46, ...

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

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Please apply any other charges or credits to deposit account 06-1050, reference 10559-849001.

Respectfully submitted,

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